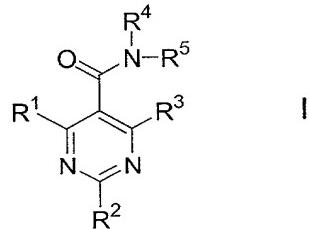


CLAIMS

We claim:

- 5 1. A method for the treatment of disorders responsive to opening of
the KCNQ potassium channels in a mammal in need thereof, which
comprises administering to said mammal a therapeutically effective
amount of a compound of Formula I



10

wherein

R¹ is selected from hydrogen, halogen, C₁₋₈alkyl, phenyl, phenylalkyl,
C₃₋₆heterocyclic, C₃₋₆heterocyclicmethyl, -CN, -OR, -NRR,
-NRNCOR or -CF₃;

15 R² is selected from halogen, C₁₋₈alkyl, C₃₋₇cycloalkyl, phenyl, phenylalkyl,
C₃₋₆heterocyclic, C₃₋₆heterocyclicmethyl, -CN, -OR, -NRR,
-NRNCOR or -S-R;

R³ is selected from hydrogen, halogen or C₁₋₈alkyl;

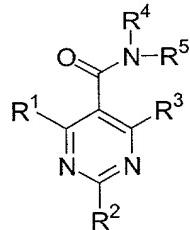
R⁴ is selected from hydrogen, -CH₃ or -CH₂C₆H₅;

20 R⁵ is selected from hydrogen, C₁₋₈alkyl, C₃₋₇cycloalkyl, phenyl, phenylalkyl,
C₃₋₆heterocyclic or C₃₋₆heterocyclicmethyl;

wherein each occurrence of R is independently selected from the group
consisting of C₁₋₈alkyl, C₃₋₇alkynyl, phenyl, phenylalkyl, C₃₋₆heterocyclic
and C₃₋₆heterocyclicmethyl.

25

2. The method of claim 1 wherein the compound of Formula I is
selected from a compound having the structure



wherein

R^1 is hydrogen;

R^2 is selected from the group consisting of NR^6R^7 , SR^8 , OR^9 , phenyl, and

5 thienyl; in which said phenyl is optionally substituted with one or
two C_{1-3} -alkoxy groups;

R^3 is selected from the group consisting of C_{1-6} -alkyl, trifluoromethyl,
 C_{3-7} -cycloalkyl, C_{3-7} -cycloalkylmethyl, phenyl, amino,
di(C_{1-3} -alkyl)amino and pyrrolidinyl; in which said phenyl is optionally
10 substituted with a halogen;

R^4 is selected from the group consisting of phenylmethyl, furanymethyl,
and C_{3-7} -cycloalkylmethyl; in which the phenyl of said phenylmethyl
is optionally substituted with one substituent selected from the
group consisting of halogen, C_{1-3} -alkyl, di(C_{1-3} -alkyl)amino,
15 trifluoromethyl, trifluoromethoxy, and trifluoromethylthio; and in
which the furanyl of said furanymethyl is optionally substituted with
a C_{1-3} -alkyl group;

R^5 is hydrogen;

R^6 and R^7 are each independently selected from the group consisting of

20 hydrogen, C_{1-6} -alkyl, C_{3-7} -cycloalkyl, C_{3-7} -alkynyl, phenyl, and
phenylmethyl; in which said C_{1-6} -alkyl is optionally substituted with a
hydroxy group and in which said phenyl is optionally substituted
with one or two substituents selected from the group consisting of
halogen, trifluoromethoxy, and nitro; or R^6 and R^7 taken together
25 with the nitrogen to which they are attached form a heterocyclic
ring selected from the group consisting of pyrrolidinyl, morpholinyl,
piperidinyl, homopiperidinyl, methylpiperidinyl, and 1,2,3,4-
tetrahydrosquinolinyl;

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- R⁸ is selected from the group consisting of C₁₋₆alkyl, C₃₋₇cycloalkyl, phenyl, phenylmethyl, furanylmethyl, and thiienyl; in which said phenyl is optionally substituted with one halogen or nitro group; and
- 5 wherein the phenyl of said phenylmethyl is optionally substituted with one halogen or C₁₋₃alkyl group; and
- R⁹ is selected from the group consisting of C₃₋₇alkynyl, phenyl, 1-(4-fluorophenyl)ethyl, and thiienylmethyl; in which said phenyl is optionally substituted with a halogen or C₁₋₃alkoxy group.
- 10
3. The method of claim 1 wherein said disorder is migraine or migraine-like attack.
- 15
4. The method of claim 2 wherein said disorder is migraine or migraine-like attack.
- 20
5. A pharmaceutical composition for the treatment of disorders responsive to opening of KCNQ potassium channels comprising a therapeutically effective amount of the compound of claim 1 in association with a pharmaceutically acceptable carrier, adjuvant or diluent.
- 25
6. A pharmaceutical composition for the treatment of disorders responsive to opening of KCNQ potassium channels comprising a therapeutically effective amount of the compound of claim 2 in association with a pharmaceutically acceptable carrier, adjuvant or diluent.